

## 3.22 HAZARDOUS MATERIALS AND WASTES

### 3.22.1 Studies and Coordination

Environmental agency records were obtained through EDR, Inc., a database service that searches current federal and state agency databases. The search area included a 2-mile search radius along the linear I-405 corridor, including east-west corridors SR 520 (from Lake Washington to SR 202), I-90 (from Mercer Island to Lake Sammamish), and north-south corridor SR 167 (from I-405 to SR 18). This information has been relied on; independent verification of the database was not performed. The EDR, Inc. data sources for this analysis included the following state and federal environmental agency records:

- Federal National Priority List (NPL) Site List and Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List
- Federal Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) Facilities List
- Federal RCRA Corrective Action Report (CORRACTS, identifies RCRA corrective action activity)
- Federal RCRA Generators List
- Federal Emergency Response Notification System (ERNS) List
- Washington State's List of Waste Sites Identified for Investigation or Remediation (NPL and CERCLIS Equivalents)
- Washington State's Landfill or Solid Waste Site Lists
- Washington State's Leaking Underground Storage Tank (UST) Lists
- Washington State's Registered UST Lists

Because of the programmatic approach to assessment of hazardous materials and waste impacts in the I-405 corridor, no specific coordination with state and federal agencies was conducted. This coordination is deferred until more specific project information is available for the alternatives. Coordination with these agencies would be needed on a project-specific basis if hazardous material or waste impacts are identified and mitigation measures need to be addressed.

### 3.22.2 Methodology

Information from environmental regulatory agency databases was obtained through the use of a geographically indexed database search. Findings were plotted on a map of the I-405 corridor. A key map and 48 area maps that locate identified sites are included in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001) (on compact disk) herein incorporated by reference.

General impacts due to construction and operation were addressed. General expected right-of-way acquisition areas and expected areas of construction where soils, groundwater, or sediments could be disturbed were used, along with general distribution of mapped sites from agency database records, to characterize relative impacts. Expected construction areas were assumed to be approximately equal to new impervious surface areas calculated by David Evans and

Associates, Inc. (DEA) for each alternative (as reported in Table 3.5-2 in the Water Resources section of the EIS). The disturbance of soils, groundwater, or sediments in areas where contamination is present could result in a release of contaminants. General secondary and cumulative impacts were addressed corridor-wide for each alternative. Impacts were evaluated based on best professional judgement and provided in relative terms (low, medium, high) for this programmatic analysis. General mitigation measures were developed for types of impacts identified.

### **3.22.3 Affected Environment**

#### **3.22.3.1 *Summary of Standard Federal and State Environmental Record Review***

##### **Federal NPL Site List and CERCLIS List**

Four NPL sites were identified within the searched area. These include:

- Midway Landfill, 24808 Pacific Highway South, Kent
- Kent Highlands Landfill, 240th & Military Road, Kent
- Western Processing Co., Inc., 7215 South 196th Street, Kent
- PACCAR, Inc., 1400 North 4th Street, Renton

Five CERCLIS sites were identified within the searched area. These include the above four NPL sites and:

- JH Baxter & Co., Inc., 5015 Lake Washington Boulevard N., Renton

In addition, there were 23 CERCLIS sites designated “No Further Remedial Action Planned” (NFRAP) in the search area. Information on these sites is included in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001).

#### **3.22.3.2 *Federal RCRA TSD Facilities List***

There were no RCRA TSD facilities identified within the search area. However, there were eight sites identified with RCRA Corrective Action activity, including:

- Honeywell International, Inc., 15001 NE 36th Street, Redmond
- Boeing Renton, 800 North 6th Street, Renton
- Liquid Waste Disposal Co., 7113 South 196th, Kent
- BSB Diversified CO., Inc., 8202 South 200th Street, Kent
- Burlington Environmental Inc., 20245 77th Avenue South, Kent
- Boeing A&M Space Center, 20403 68th Avenue South, Kent
- Van Waters & Rogers, Inc., 8201 South 212th Street, Kent
- Boeing Kent Benaroya, 20651 84th Avenue South, Kent

#### **3.22.3.3 *Federal RCRA Generators List***

There are 1,448 RCRA small quantity generators (SQGs) of hazardous waste identified within the search area, and 84 RCRA large quantity generators (LQGs) of hazardous waste. SQGs generate less than 100 kg/month of non-acute hazardous waste. LQGs generate at least 1,000

kg/month of non-acute hazardous waste or 1 kg/month of acutely hazardous waste. Additional information on these sites is included in the data report in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001).

#### **3.22.3.4 Federal ERNS List**

There are 87 sites with Emergency Response Notification System (ERNS) records within the searched area. The Emergency Response Notification System is maintained by the U.S. Environmental Protection Agency (USEPA). ERNS records and stores information on reported releases of oil and hazardous substances. Additional information on these sites is included in the data report in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001).

#### **3.22.3.5 Washington State's Confirmed or Suspected Contaminated Sites List**

There are 129 Confirmed or Suspected Contaminated Sites List (CSCL) sites within the searched area. These sites have been identified by the Department of Ecology (Ecology) as having confirmed or unconfirmed contaminated environmental media. Environmental media include soil, groundwater, surface water, sediment, and air. Contaminants identified at these sites include one or more of the following:

- Petroleum hydrocarbons
- Volatile organic compounds (halogenated and unhalogenated)
- Semivolatile organic compounds (including polynuclear aromatic hydrocarbons [PAHs])
- Metals
- Polychlorinated biphenyls (PCBs)
- Pesticides/herbicides
- Conventional pollutants (e.g., pH, ammonia, etc.)

Additional information on these sites is included in the data report in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001).

In addition, there are 180 sites identified on the Washington State Independent Cleanup Report (ICR) list within the project area. These include sites where reports on site cleanup actions have been received by Ecology. These cleanup actions have been conducted independently by the owners or operators at these sites and may not have approval from Ecology. Additional information on these sites is included in the data report in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001).

#### **3.22.3.6 Washington State's Landfill or Solid Waste Site Lists**

Based on the information provided, three solid waste facilities or landfills were identified within the search area:

- Fruhling Wood Waste Landfill, 310 Poppy Road, Snohomish County
- Waste Management of Seattle, 13225 NE 126th Place, Kirkland
- Rabanco Black River Transfer Station, 200 112th Avenue NE, Tukwila

### **3.22.3.7 Washington State's Leaking UST Lists**

There are 490 leaking USTs identified within the search area. Additional information on these sites is included in the data report in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001).

### **3.22.3.8 Washington State's Registered UST Lists**

There are 1,071 registered USTs identified within the search area. Additional information on these sites is included in the data report in Appendix C of the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001).

## **3.22.4 Impacts**

### **3.22.4.1 All Alternatives**

#### **Construction Impacts**

Construction impacts include encounters or releases of contaminants to the environment by ground-disturbing or dewatering activities. Based on a review of environmental agency information, potential types of hazardous substance contamination that could be encountered during project construction include petroleum-contaminated soil, surface water, and groundwater; and USEPA priority pollutants, organic compounds (volatile and semivolatile compounds and pesticides), metals, and PCBs in soil, groundwater, and surface water. If this contamination is not managed properly in accordance with existing regulations, there is a potential impact to human health and ecological receptors.

If the construction phase of these alternatives includes any building or structure demolition, hazardous materials including asbestos, lead-based paint, and PCBs may be present in these structures. Release of these hazardous materials during demolition would be a concern.

Underground storage tanks (USTs) and leaking USTs (LUSTs) have been identified in agency databases for areas adjacent to the alternatives. In addition, unidentified or abandoned USTs may be present, particularly in older residential areas.

Contaminated materials may be encountered in areas with known contamination, in areas where recorded activities such as hazardous waste generation or storage of fuel in USTs have the potential to have impacted soils or groundwater, or in other areas not identified in the environmental database search. In such a case, the possible environmental impacts might include the following:

- Potential release of contaminated air emissions (dust and volatile organic compounds), contaminated soil, surface water, and groundwater during construction
- Potential alteration of contaminated groundwater plume(s) and generation of contaminated water during dewatering activities
- Potential alteration of contaminant migration pathways due to excavation and other construction activities

Should electrical transformers require relocation during construction, a potential impact during removal and relocation would be a release of transformer fluid that might contain PCBs.

An additional potential impact common to the alternatives would be the release of a hazardous substance during construction. For example, fuels and oils needed for heavy equipment operation and maintenance might be spilled within the project area—a hazard common to all construction projects. Cleanup of the spilled material and disposal of wastes from cleanup, including contaminated soil, might add additional time and costs to construction operations. Large spills of hazardous materials during construction might also require emergency response agency intervention.

Although the impacts listed above would be potential impacts during construction of the alternatives, actions included under each of the alternatives being evaluated would need to be addressed at a project-specific level. No substantial impacts have been identified during this programmatic analysis. These impacts were determined to be not substantial because there are existing regulations and standard procedures that protect human health and the environment. For this programmatic analysis, it is assumed that there would be compliance with these regulations, and standard procedures, such as conducting environmental site assessments and hazardous material surveys prior to right-of-way acquisition or construction, would be used.

### **Operational Impacts**

For the specific projects completed for each alternative, if contamination of soil, groundwater, surface water, or sediment is identified, or if cleanup alternatives selected include long-term onsite treatment of soils or groundwater, there may be a potential risk to public health for persons on the site.

There is a potential for release to the environment of hazardous substances used or transported during routine operation and maintenance of the corridor. Shipping of hazardous materials by motor vehicles is regulated under the authority of the USDOT through CFR 49. The proposed improvements would be consistent with requirements for shipment of hazardous materials because they are designed to eliminate many existing traffic flow and transportation safety impediments that pose danger to vehicles transporting any type of hazardous waste materials.

For all cases, the acquisition of an easement or title to properties with potential environmental contamination could create substantial long-term environmental liability or management concerns. Longer-term environmental liabilities might include financial responsibility for cleanup of onsite contamination or for remediation activities necessitated by offsite migration of hazardous substances.

It is recognized that maintenance facilities are needed for the transit vehicles. These maintenance facilities could store petroleum or hazardous materials and generate hazardous waste. Impacts from these maintenance facilities, or expansion of existing facilities, have not been evaluated for this programmatic analysis as no specific action is identified. This analysis would need to be performed at the project-level.

No substantial operational impacts were identified during this programmatic analysis based on relative comparison of operational impacts for the major elements of the alternatives. A relative comparison of the alternatives to consider the potential for release of hazardous substances used or transported to the environment indicates that the impacts of the No Action Alternative and various action alternatives are similar. More specific evaluation of impacts would need to be performed at the project-level analysis.

### 3.22.4.2 Action Alternatives

#### Construction Impacts

As developed in the *I-405 Corridor Program Draft Hazardous Materials and Wastes Technical Memorandum* (CH2M HILL, 2001), relative comparison of impacts (low, medium, high) during construction for the major elements and segments of the I-405 corridor alternatives was prepared based on general expected areas of construction, along with general area development type and proximity of sites identified in the regulatory agency database search. Expected construction areas were assumed to be approximately equal to new impervious surface areas calculated by David Evans and Associates, Inc. (DEA) for specific actions for each of the alternatives. The disturbance of soils, groundwater, or sediments in construction areas where contamination is present could result in a release of contaminants.

With these assumptions, the alternatives with larger construction areas (in particular, those with construction in areas where sites identified by the environmental agency database search are concentrated or in areas in the vicinity of substantially contaminated sites identified on the NPL and CERCLIS lists) are expected to have greater construction impacts. Based on the limited information available in terms of design for actions within the alternatives, Alternative 4, General Capacity, has the greatest expected construction area, followed closely by the Preferred Alternative and Alternative 3, Mixed Mode. These alternatives have a similar sum of actions where there is a relatively high impact; this sum is greater than those for the other alternatives. It is expected that these alternatives would have greater construction impacts than Alternative 1, HCT/TDM, and the No Action Alternative. Alternative 2, Mixed Mode with HCT/Transit, has an expected construction area less than the Preferred Alternative and Alternatives 3 and 4, and greater than Alternative 1 and the No Action Alternative.

More specific evaluation of impacts would need to be performed at the project-level analysis.

#### Operational Impacts

A relative comparison of the alternatives to consider the potential for release of hazardous substances used or transported to the environment indicates that the impacts of the various action alternatives are similar to those for the No Action Alternative.

### 3.22.5 Mitigation Measures

Mitigation measures can be taken to control, mitigate, or eliminate the impacts discussed above. Environmental regulations in place require the appropriate management of contaminated media such as soil or groundwater, require strict control and management of hazardous wastes, and establish criteria for transportation of hazardous substances.

Although hazardous material and waste impacts have only been identified at the programmatic level, the following mitigation measures will apply where appropriate to the project.

- Acquire additional information regarding the nature and extent of contamination at the identified sites for specific project actions. This information can be obtained through research of publicly available data, and by conducting Phase I environmental site assessments and Phase II environmental site investigations.
- Conduct modified environmental site assessments or transaction screening evaluations for sites located adjacent to the project sites and rights-of-way. Even sites not located within a

project area or right-of-way could have adverse impacts on the design and construction of the project due to offsite migration of contaminants. The site assessment would include a review of existing environmental conditions with a focus on the potential for offsite contamination by groundwater or surface water.

- Conduct additional studies to determine if asbestos-containing materials or lead-based paint are present in structures prior to demolition activities. If structures to be demolished are found to contain these substances, applicable regulations pertaining to the handling and disposal of these materials will be followed. An approved contractor will be designated to conduct the abatement portion of the demolition for the buildings that contain asbestos or lead-based paint. Regular onsite inspection would increase conformance to federal, state, and local regulations and guidelines.
- Conduct additional studies to locate undocumented underground storage tanks and fuel lines prior to construction. Areas of concern include current and former residential and commercial structures as well as fuel tanks associated with former industrial sites. Underground storage tanks located within the project site would be permanently decommissioned and properly removed before general construction activities are started, if applicable.
- Identify any utilities that need to be relocated. Electrical transformers containing oil, considered a hazardous substance under state regulations, will be handled carefully in order to avoid a release or accidental spill during the relocation of transformers.
- Design projects to help prevent additional future release of toxics to the environment.
- Phase construction activities in concert with any needed cleanup activities to avoid contaminated areas. Communication among the responsible parties and the regulatory agencies, and coordination of schedules, would lessen environmental impacts.
- Implement construction techniques that minimize disturbance to the subsurface and prevent the transport of contaminants to uncontaminated areas. These techniques will address installation of piling, dewatering activities, site grading and excavation, and stormwater pollution prevention.
- Prepare a comprehensive Hazardous Substance Management Plan and a worker Health and Safety Plan that would minimize the effects of identified and unanticipated hazardous substance impacts from contaminated soil and groundwater.
- Require contractors selected to do the construction work to follow careful construction practices to protect against hazardous material spills from routine equipment operation during construction. Contractors will be required to submit a Spill Prevention, Control, and Countermeasure Plan for WSDOT projects as required by WSDOT Standard Specification 1-07.15. The contractor also will be required to be familiar with proper hazardous material storage and handling and know emergency procedures, including proper spill notification and response requirements.

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